

NOVEL FLEA ECDYSONE AND ULTRASPIRACLE NUCLEIC ACID MOLECULES, PROTEINS AND USES THEREOF

Abstract of Disclosure

The present invention relates to flea ecdysone receptor and ultraspiracle proteins; to flea ecdysone receptor and ultraspiracle nucleic acid molecules, including those that encode such flea ecdysone receptor and ultraspiracle proteins; to antibodies raised against such flea ecdysone receptor and ultraspiracle proteins; and to compounds that inhibit flea ecdysone receptor and/or ultraspiracle activity. The present invention also includes methods to obtain such proteins, nucleic acid molecules, antibodies, and inhibitory compounds. Also included in the present invention are therapeutic compositions comprising a protective compound derived from a protein of the present invention that inhibits the binding between ecdysone receptor and ecdysone as well as the use of such therapeutic compositions to protect animals from flea infestation.

